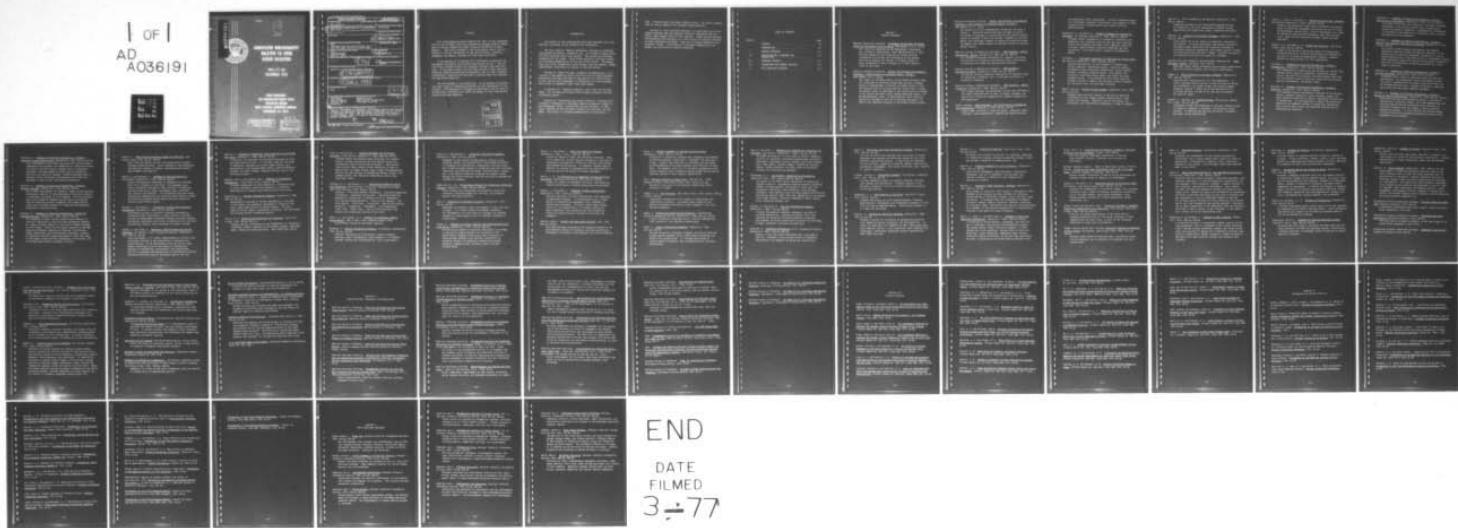


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ANNOTATED BIBLIOGRAPHY RELATIVE TO FIXED OCEAN FACILITIES

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DECEMBER 1976

OCEAN ENGINEERING
AND CONSTRUCTION PROJECT OFFICE
CHESAPEAKE DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
WASHINGTON, D.C. 20374

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Preface

This bibliography has been compiled for FP0-1 of the Chesapeake Division of the Naval Facilities Engineering Command under an amendment to Contract N00014-76-C-0534 issued by the Office of Naval Research. The titles included in this publication result from our efforts to collect information on the specifications, standards, handbooks, and manuals relevant to fixed ocean facilities.

In the process of collecting this information we contacted approximately 600 public and private organizations by mail. Many of the titles included reflect the responses received from these mailings. To the same purpose, work was done on-site at many technical libraries compiling annotated bibliographic data on their holdings. Professional literature and publisher's catalogs were also examined for applicable materials.

The bibliography is not exhaustive. In the process of collecting other types of information pertinent to the requirements of the contract, a bibliography of information determined to be of value to professionals involved in all types and phases of ocean engineering projects has been compiled.

CLASSIFICATION		WHITE SECTION	BLACK SECTION
ATIS	AMERICAN STANDARD	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SAC	UNCLASSIFIED	<input type="checkbox"/>	<input type="checkbox"/>
JURISDICTION			
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Introduction

The entries in this bibliography have been separated into five sections, according to the format of the information.

The first section, "General Reference," provides an annotated bibliography of manuals, handbooks, etc. All relevant subject areas are given coverage within this section. The entries are arranged alphabetically by author. Those titles having no individual author are arranged alphabetically at the end of the section. The annotations are brief, attempting to give insight into the content, format, completeness, timeliness and purpose of the publication.

Section II, "Specifications, Standards and Regulations," is a listing of some materials which could be of use to ocean engineers. Annotations have been provided on some entries for clarification. In this section the arrangement is alphabetical by issuing agency, with titles in alphabetic order under each agency.

In Section III, "Technical Reports," the titles are not annotated. All of these publications are available directly from the originating source.

Section IV, "Proceedings and Journal Articles," provides bibliographic information on individual papers authored by leaders in the represented fields. Annotations are not provided. In most cases, reprints of the individual articles are available for purchase. Each entry is arranged alphabetically by the authors'

name. Titles without individual authors follow. The yearly proceedings of certain agencies are arranged chronologically.

Section V, "NTIS Published Searches," is restricted to bibliographies obtained from the National Technical Information Service (NTIS) under another phase of this contract. These searches provide bibliographies with abstracts on a wide variety of subjects valuable to ocean engineering projects. They can be valuable additions to a technical library. This material is arranged alphabetically by author, and each entry is briefly annotated.

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Section I General Reference

American Petroleum Institute. Assessment of Currents and Hydrography of the Eastern Gulf of Mexico (862-00400), A.P.I., \$5.00.

This study was conducted by the Department of Oceanography, College of Geosciences, Texas A&M University in 1973. The main purpose of the study was to review existing information on currents and hydrography of the eastern Gulf and to present the results in a manner useful to those interested in basic sciences or in their applications to this area.

American Petroleum Institute. Coastal and Offshore Environmental Inventory - Cape Hatteras to Nantucket Shoals, Volume I (862-09000), A.P.I., \$5.00.

This report of selected studies of the Middle Atlantic Bight was contracted to the Marine Experiment Station, Graduate School of Oceanography, University of Rhode Island in 1973. The objective was to utilize qualified authorities to assess the present state of knowledge in the various marine sciences of the coastal and shelf areas between Nantucket Shoals, off the Massachusetts coast, to Cape Hatteras, North Carolina. Charts are included to provide an overview and details of some of the important features of the Middle Atlantic Bight.

American Petroleum Institute. Coastal and Offshore Environmental Inventory - Cape Hatteras to Nantucket Shoals, Volume II (862-09002), A.P.I., \$5.00.

The objective of this complementary volume was the same as Volume I. Qualified authorities were assigned to survey the state of knowledge in certain marine and related science areas not covered in the first volume. Examples of environmental and organismal changes are given with possible causes to suggest the complex nature of problems related to environmental quality.

American Society of Mechanical Engineers. ASME Handbook - Metals Engineering: Design, McGraw-Hill, 1965, 605 pp. \$28.75.

This handbook discusses machinability, strength, and other characteristics of metals, and explains their significance to engineers and others who design metal products.

American Society of Mechanical Engineers. ASME Handbook - Engineering Tables, McGraw-Hill, 1956, 692 pp, \$24.75.

This manual contains extensive tabulations of essential data on dimensions, standards, etc., of eminent usefulness to mechanical engineers.

American Society of Mechanical Engineers. ASME Handbook - Metals Properties, McGraw-Hill, 1954, 445 pp, \$22.50.

This volume considers the properties of more than 500 metals, and offers tabulated data on their strength, hardness, machinability, electrical conductivity, thermal conductivity, and composition.

Ayers, Chesley. Specifications: For Architecture, Engineering and Construction, McGraw-Hill, 1975, 448 pp, \$14.50.

Covers legal citations by name and number, industrial specifications, value engineering, computerized specifications,

and government safety regulations. Valuable reference manual for architects, engineers, contractors, and students of these related fields in preparing for and actually writing specifications.

Baumeister, T. and Marks, L. Standard Handbook For Mechanical Engineers, 7th edition, McGraw-Hill, 1967, 2456 pp, \$35.00.

Includes recent information on cryogenics, aerospace, and computers; plus essential data on iron and steel coatings, paints and protective coatings, fuels, gearing, pipes and fittings, steam turbines, materials handling, and cost accounting. The volume offers a wealth of mathematical tables.

Callender, J. Time-Saver Standards For Architectural Design Data, 5th edition, McGraw-Hill, 1974, 1042 pp, \$32.50.

Contains new material on such subjects as foundations, fallout shelters, engineered masonry, lockstrip gaskets, earthquake loads, reflective coated glass, waste disposal systems, structural sandwich panels, cold weather construction, individual water supply, and steel deck deep longspan joists. A new section on solid waste handling systems, written to comply with the most recently enacted air pollution laws, has also been included.

Chasis, David A. Plastic Piping Systems, Industrial Press, 1976, 224 pp, \$17.50.

Presents many practical answers in the form of detailed information on the longest plastic product group - pipe, valves and fittings. Empirical data on the design, applications, and installation techniques of today's products.

Chellis, R. Pile Foundations, 2nd Edition, McGraw-Hill, 1961, 704 pp, \$26.50.

Extensive coverage of the relationship between borings, soil mechanics, and pile foundations including factors determining pile capacities, types, protection and repair.

Cockrell, W. Industrial Electronics Handbook, McGraw-Hill, 1958, 1376 pp, \$35.00.

Gives expert aid in all phases of industrial electronics and control. It covers everything from Geiger counters to multiphase power rectifiers with extensive coverage of electronic switches, automation, and process control, stressing applications and the user's needs. Parallel discussions of alternative and auxiliary means are included.

Construction Steel Research and Development Organization. Steel Designers' Manual, Halstead, 1975, \$32.50.

Describes modern design procedures and provides authoritative data facilitating economic and efficient construction.

Coombs, C. Basic Electronic Instrument Handbook, McGraw-Hill, 1972, 823 pp, \$29.50.

Contains basic background for all instrumentation. It offers engineers both a savings in time and work by having the information in a single volume, and reduced company expenses, because it shows how to get the most out of available devices, and how to buy the best instruments for specific needs.

Crocker, S. and King, R. Piping Handbook, 5th edition, McGraw-Hill, 1967, 1526 pp, \$38.50.

Storehouse of data and procedures on the most effective uses of piping in industrial, municipal, and building piping systems. It contains new sections on nuclear, cryogenic, and other piping applications.

Croft, T., Carr, C. and Watt, J. American Electricians' Handbook, 9th Edition, McGraw-Hill, 1970, 1548 pp, \$25.80.

Guide to the selection, installation, operation and maintenance of electrical equipment; now covers the use of latest wiring devices, ground fault circuit interrupters, all types of electrical space heating equipment, new light sources (e.g., metal halide and quartz halogen lamps) and much much more.

Cusens, A. R. and Pama, R. P. Bridge Deck Analysis, John Wiley & Sons, 1975, 278 pp, \$27.50.

A book on the analysis and design phases of bridge superstructures which will provide the designer with methods he can use; it is aimed at postgraduate students, research workers and practitioners in civil engineering.

Davidson, A. Handbook of Precision Engineering - Volume 1: Fundamentals, McGraw-Hill, 1971, 400 pp, \$22.50.

This comprehensive volume gives the designer an insight into drawing office practice, kinematics, electrical theory, optics, the auxiliary sciences, and other matters that concern him directly such as planning, cost-price calculation, quality requirements, and patent rights.

Davidson, A. Handbook of Precision Engineering - Volume 2: Materials, McGraw-Hill, 1971, 400 pp, \$22.50.

This handbook devotes considerable attention to non-ferrous metals, synthetic materials, glass, ceramics, paper, and other materials which are of special importance to this area of engineering. It also describes in detail the auxiliary materials not commonly covered in traditional engineering books such as glue, paint, and compounds used during the manufacturing processes.

Davidson, A. Handbook of Precision Engineering - Volume 3: Fabrication of Non-Metals, McGraw-Hill, 1972, 275 pp, \$22.50.

The author covers both the traditional and newly developed techniques in the rapidly growing area of working and shaping non-metallic materials. Comprehensive information is provided on such materials as plastics, glass, ceramics, and monocrystalline materials.

Davidson, A. Handbook of Precision Engineering - Volume 4: Physical and Chemical Fabrication Techniques, McGraw-Hill, 1972, 172 pp, \$22.50.

This fourth volume presents the physical and chemical techniques that have become increasingly important in the fabrication of precision components, especially in micro-miniaturization and in the construction of integrated circuits. These techniques range from electrical discharge ultrasonics, and thin-film technology to etching processes for a wide range of materials.

Davidson, A. Handbook of Precision Engineering - Volume 5: Joining Techniques, McGraw-Hill, 1972, 297 pp, \$22.50.

A handbook which treats an important aspect of precision engineering - the techniques of making permanent joints. The joints presented here are those joints which only can be loosened destructively. Methods of welding, soldering, and gluing are each given separate treatment.

Davidson, A. Handbook of Precision Engineering - Volume 6: Mechanical Design Applications, McGraw-Hill, 1972, 325 pp, \$22.50.

Describing the ways that mechanical design is applied in engineering a precision product, this book demonstrates and discusses design results exclusively with reference to structural elements that are common to every precision engineering product. It also analyzes the accurate dimensioning of precision engineering mechanisms to give interchangeability and renewal.

Davidson, A. Handbook of Precision Engineering - Volume 7:
Electrical Design Applications, McGraw-Hill, 1973, 242 pp, \$22.50.

This comprehensive work shows how electrical and electronic components and equipment are assembled in a precision product. Its special sections discuss systems found in electronic equipment, the measurement of electrical and mechanical qualities by electrical methods, recording measured data in graphical form, and design considerations for electrical equipment in mass series, and one-off production.

Davidson, A. Handbook of Precision Engineering - Volume 8:
Surface Treatment, McGraw-Hill, 1973, 265 pp, \$22.50.

How to meet requirements for geometric shape, surface quality and material quality in the production of precision products is thoroughly discussed in this handbook. The first section deals with production methods and the tools and machines used for improving surface roughness; the second section covers heat treatment methods for improving the mechanical properties of the work piece.

Davidson, A. Handbook of Precision Engineering - Volume 10:
Forming Processes, McGraw-Hill, 1974, 300 pp, \$22.50.

The processes of metal forming without stock removal, of essential importance to the precision engineering industry as a means of mass production, are given in-depth coverage in this volume. Within the five major sections of the book (Shearing Processes, Bending and Drawing, Flow-forming, Powder, Metallurgy, and Fluid-forming Processes) a wealth of exhaustive and well-researched material spans the range of the subject from available technology, to processes, and on through applications, purposes, and uses.

Davies, C. Steel-Concrete Composite Beams For Building, John Wiley & Sons, 1975, 125 pp, \$18.50.

Deals with the theory, design, and construction of steel-concrete composite beams. Gives coverage of the theoretical and practical aspects of design, considering both elastic and ultimate load behavior.

Davis, C. and Sorenson, K. Handbook of Applied Hydraulics, 3rd edition, McGraw-Hill, 1969, 1680 pp, \$45.50.

Covers the essentials necessary to competent and informed work in all branches of the field. The handbook gives broad, definitive coverage to the principles of hydrology and basic hydraulics, water conveyance, dams, and water use, control, and disposal. It incorporates the most recent advances and demonstrates the practical applications of these principles by examples drawn largely from the records of recently constructed projects.

Dresner, L. and Jaeger, T. Principles of Radiation Protection Engineering, McGraw-Hill, 1965, 451 pp, \$21.50.

Introductory survey of radiation protection engineering proceeding from a discussion of atomic physics, radiation biology and measurement techniques through shielding problems and design, separation facilities, irradiation units, particle accelerators, wastes, and containment of reactor systems.

Dunham, C. and Young, R. Contracts, Specifications and Law For Engineers, 2nd Edition, (Civil Engineering Series), McGraw-Hill, 1971, 523 pp, \$18.50.

Gives the reader: (1) a basic understanding of various legal principles involved in the preparation of contracts and specifications, (2) an acquaintance with the various legal matters which may arise in the conduct of professional practice in engineering, architecture, and construction, and (3) an awareness and appreciation of pertinent and typical questions which may arise in the broad realm of the law.

Emerick, R. Handbook of Mechanical Specifications For Buildings and Plants, McGraw-Hill, 1966, 496 pp, \$16.95.

A checklist for engineers and architects designed to guide the specification writer. It includes items for all types of mechanical equipment and covers steam, diesel, gas, hydroelectric, and nuclear power plants, steam distribution systems, hot water systems, premises heating, and air conditioning systems.

Eshbach, Ovid W. and Souders, Mott. Handbook of Engineering Fundamentals. John Wiley, 1976, 1,568 pp, \$29.95.

Provides terminology for each speciality, alternative ways to handle problems, worked-out examples to illustrate applications of formulas and minimize effort and errors.

Etherington, H. Nuclear Engineering Handbook, McGraw-Hill, 1958, 1882 pp, \$35.00.

Comprehensive coverage of nuclear engineering is provided in this manual for engineers interested in industrial and other useful applications of nuclear energy. The text details nuclear theory, engineering principles, and techniques, and provides helpful reference material.

Fertis, D. G. Dynamics and Vibrations of Structures, John Wiley & Sons, 1973, 485 pp, \$21.75.

Presents concise information on the fundamentals of structural vibrations, dynamic response of spring-mass systems, idealized beams, frames and simple buildings. Many additional topics.

Fink, D. and Carroll, J. Standard Handbook For Electrical Engineers, 10th Edition, McGraw-Hill, 1968, 2596 pp, \$38.50.

Includes modern and sophisticated techniques for computer control of power generation and distribution along with conventional data on wiring and switchgear. New sections cover nuclear power plants; direct conversion of heat to electricity; d-c power plants; power system instrumentation; EDP and its applications to engineering design, control, and communications; and industrial electronics, plus a new, functional index.

Fletcher, G. A. and Smoots, F. A. Construction Guide For Soils and Foundations (Wiley Series of Practical Construction Guides), John Wiley and Sons, 1974, 420 pp, \$21.25.

Contains -- Available General Information. Available Subsurface Information. Subsurface Exploration. Subsurface Sampling. Geophysical Exploration (H. Maxwell and N. M. Ravenberg). Soil and Rock Characteristics. Tests of Soil Samples. The Soils Report. Field Tests. Excavation. Shoring and Bracing. Backfills. Foundations. Settlement. Pile Foundations. Timer Piles. Steel Piles. Cast-in-Place Concrete Piles. Precast and Prestressed Concrete Piles (CIP).

Funk, C. J. and Bryant, S. B. Handbook of Underwater Imaging System Design, (NUC TP 303), Naval Undersea Center, 1972.

Distribution limited to government agencies.

Gartmann, H. DeLaval Engineering Handbook, 3rd edition, McGraw-Hill, 1970, 521 pp, \$15.50.

Contains information on prime movers, energy conversion machines, power transmission, steam condensers, filtration systems, testing and instrumentation, and related topics.

Gaylord, E. and Gaylord, C. Structural Engineering Handbook, McGraw-Hill, 1968, 1216 pp, \$35.00.

Assembles in one concise volume material related to the planning, design, and construction of engineered structures. It discusses soil exploration, foundations, working-stress, and ultimate-strength design of reinforced concrete structures, industrial and high-rise buildings, concrete shells, towers, etc., with special attention to design for dynamic loads, fatigue and brittle fracture, and the solution of engineering problems by computer.

Gibbs and Cox, Inc. Marine Design Manual For Fiberglass Reinforced Plastics, McGraw-Hill, 1969, 376 pp, \$26.00.

Fully explains the engineering and structural principles involved in building commercial, military, and pleasure vessels from these plastics.

Graf, W. Hydraulics of Sediment Transport, McGraw-Hill, 1971, 544 pp, \$23.50.

Organizes and examines recent developments in the field and includes: (1) a short history of sediment transport; (2) hydrodynamics of fluid particle systems; (3) sediment transport in open channels; and (4) sediment transport in closed pipes.

Harper, C. Handbook of Wiring, Cabling, and Interconnecting For Electronics, McGraw-Hill, 1972, 1100 pp, \$34.00.

Principles and methods of applying interconnecting systems to electronic product designs are discussed in this authoritative handbook which covers basic selection of these systems together with practical information on soldered, welded, and mechanical terminating systems, materials, hookup wiring, coaxiable cable, and high voltage cable.

Harris, C. and Crede, C. Shock and Vibration Handbook, McGraw-Hill, 1961, 3 vols., 2014 pp, \$67.50.

Covers all phases of shock and vibration technology. Here is an especially valuable working reference in the areas of mechanical, aeronautical, electrical, marine, ventilating, and automotive engineering. It presents valuable special material of interest to geophysicists and those working in missile testing and design of military equipment.

Harris, L. M. An Introduction to Deepwater Floating Drilling Operations, Petroleum Publishing, 1972, 272 pp, \$19.50.

Covers all aspects of deepwater drilling, from selecting vessels and hardware to safety precautions and personnel.

Havers, J. and Stubbs, F. Handbook of Heavy Construction, McGraw-Hill, 1971, 1,440 pp, \$39.50.

Codifies the basics of heavy construction, from tunneling to skyscraper erection. It incorporates also a virtual manual of construction management, and a handbook of construction equipment. Practical rather than rigidly logical in its organization, it includes sections on basic operations like concreting and rock excavation along with special-purpose sections on pipelines and pavements.

Herbich, John B. Coastal and Deep Ocean Dredging, Gulf, 1976, 622 pp, \$24.95.

This book discusses everything from dredging methods to the environmental effects of dredging, covering applications alongshore and offshore, and hydraulic and suction dredging.

Hicks, T. Standard Handbook of Engineering Calculation, McGraw-Hill, 1972, 1206 pp, \$19.50.

Collection of worked-out problems most frequently encountered by working engineers constitutes a "cookbook" for the practitioner. Step-by-step solutions to problems give the reader an understanding of the basic methods and an ability to apply them. The handbook covers all of the major engineering areas because engineers must frequently handle garden-variety design problems outside of their nominal specialities.

IEEE. National Electrical Safety Code, 1973 Edition. (IEEE Standard Series), John Wiley & Sons, 1973, 352 pp, \$11.00.

Consists of the parts of the National Safety Code (NESC) currently in effect.

Ingham, A. E. Sea Surveying, John Wiley & Sons, 1975, approx. 544 pp, 2 Parts, \$44.50.

A detailed presentation of all aspects of measurement and investigation offshore. Introduces every aspect of the marine environment applicable to those engaged in port and offshore endeavors.

Ippen, A. Estuary and Coastline Hydrodynamics, (Engineering Societies Monographs Series), McGraw-Hill, 1966, 650 pp, \$29.50.

A well-illustrated, organized study of coastal engineering, tidal hydraulics, and nearshore oceanography.

Jasik, H. Antenna Engineering Handbook, McGraw-Hill, 1961, 1013 pp, \$35.00.

Provides essential principles, methods, and data to help the antenna design engineer solve a wide range of problems connected with everyday work. It includes discussions of various types of antennas, their characteristics, and basic applications.

Korn, G. and Korn, T. Mathematical Handbook For Scientists and Engineers, 2nd edition, McGraw-Hill, 1968, 1152 pp, \$31.50.

Has added new material in such areas as Fourier integrals; calculus of variations (including second-order variations), Pontryagin's Maximum Principle, dynamic and linear programming, game theory, Boolean algebra, statistical decision theory, random processes, and other areas of particular interest to scientists and engineers.

Kverneland, K. O. World Metric Standards For Engineering, Industrial Press, 1976, Approx. 500 pp, \$45.00.

The accent is on "hard" metric conversion including such standard areas as: engineering drawing practice; preferred numbers; surface texture; ISO system of limits and fits-tolerances, deviations, and inspection; screw threads, fasteners, steel material data-including product availability, non-ferrous material data, bearings, mechanical drive systems, fluid power systems, electrical components, metal cutting tools, measuring systems, etc.

LaLonde, W. and Janes, M. Concrete Engineering Handbook, McGraw-Hill, 1962, 1172 pp, \$45.50.

Presents the essential methods, standards, and data of concrete engineering - covering the entire field from planning and design of reinforced concrete structures and elements to proved construction practices for buildings, bridges, pavements, and other concrete work.

Leonards, G. Foundation Engineering (Civil Engineering Series), McGraw-Hill, 1962, 1146 pp, \$34.00.

Experts in the field have contributed their knowledge to this full treatment of the current status of foundation engineering, with emphasis on design and construction.

Lewis, B. Facilities and Plant Engineering Handbook, McGraw-Hill, 1974, 1024 pp, \$33.00.

Provides the facilities engineer with the latest in proven management and engineering techniques needed to run a cost effective engineering program. It describes the complete, "cradle-to-grave" sequence of planning, design, construction, maintenance, management, and related functional tasks required to support production.

Lindsey, Forrest R. Pipefitters Handbook, 3rd Edition, Industrial Press, 1967, 464 pp, \$11.00.

Provides immediate answers to everyday problems involving pipe bending and fabricating. A helpful feature is the grouping of material into five distinct sections according to job descriptions.

MacDonald, A. J. Wind Loading on Buildings, John Wiley & Sons, 1975, 219 pp, \$23.50.

Examines the history of wind loading problems, relevant meteorological information, and fundamental concepts of fluid flow and drag on immersed bodies. Wind bracing systems of all types are discussed.

Mantell, C. Engineering Materials Handbook, McGraw-Hill, 1958, 1960 pp, \$41.50.

Presents a wealth of information on engineering materials with respect to design, structure, and serviceability. It covers all materials with emphasis on their fabricated forms, their physical and mechanical properties, their adaptability, advantages, limitations, protection against deterioration, their stability, etc.

Marshall, J. L. Lightning Protection, John Wiley & Sons, 1973, 190 pp, \$18.25.

Discusses such concerns as the toll of lightning, magnitude of lightning discharge, protective grounding systems, towers and systems, grounding of communications, etc.

Merritt, F. Standard Handbook For Civil Engineers, McGraw-Hill, 1968, 1326 pp, \$36.00.

Covers design management, specifications, construction management, the use of computers, and municipal and regional planning in addition to the standard civil engineering subjects.

Merritt, F. Structural Steel Designers' Handbook, McGraw-Hill, 1972, 886 pp, \$27.50.

Every aspect of structural steel design is discussed in this handbook which features practical methods for attaining optimum design of buildings, bridges, piles, and other steel structures. It presents important information on general structural theory, special structural theories, properties of structural steel, fabrication and erection, and connections. This handbook is the working reference for all professionals involved in the design of steel structures.

Myers, J., Holm, C. and McAllister, R. Handbook of Ocean and Underwater Engineering, McGraw-Hill, 1969, 1100 pp, \$33.65.

A collection of tested methods, procedures, and facts for use in underwater construction and engineering projects. The subject matter ranges from basic concepts in oceanography and fluid properties, through facts on tools and techniques, cable technology, underwater power sources, fixed and floating structures, diving and other operations. The book is sponsored by the North American Rockwell Corp.

Nairn, Alan E. M. Ocean Basins and Margins, Volume 3: The Gulf of Mexico and the Caribbean, Plenum, 1975, \$49.50.

Maps and diagrams supplement examination of the age, stratigraphic history, lithology, and structure of land areas.

National Research Council. Panel on Operational Safety In Marine Mining. Mining In the Outer Continental Shelf and In the Deep Ocean, National Academy of Sciences, 1975, \$6.25.

Surveys current innovations in marine mining techniques and forecasts future areas of research and development.

Parker, H. and Hauf, H. D. Simplified Design of Structural Steel, 4th Edition, John Wiley & Sons, 1974, 326 pp, \$13.75.

Presents the fundamentals of structural shapes, unit stresses, structural steel, theory of bending, properties of sections, use of the beam formula, beam design procedures, floor framing systems, bolted and riveted connections, welded connections, etc.

Pender, Harold and McIlwain, Knox. Electrical Engineers' Handbook: Electrical Communication and Electronics, 4th Edition, John Wiley & Sons, 1950, 1618 pp, \$24.95.

Reflects the recent developments in the field such as frequency modulation and all the pulse techniques in both communication and radar areas, as well as the increased complexity of radio aids to navigation.

Pender, Harold and Del Mar, William, Electrical Engineer's Handbook: Electric Power, 4th Edition, John Wiley & Sons, 1949, 1716 pp, \$24.50.

Provides great amount of tabulated data, performance graphs, circuit diagrams, and illustrations of equipment and their applications.

Perry, R. Engineering Manual, 2nd edition, McGraw-Hill, 1967, 782 pp, \$14.95.

Condenses the fundamentals of the standard engineering disciplines into a single compact work; covers all areas of engineering - architectural, chemical, civil, electrical, mechanical, and nuclear - and considers significant advances made in each field.

Quinn, A. Design and Construction of Ports and Marine Structures, 2nd Edition, McGraw-Hill, 1972, 608 pp, \$29.50

Essential book for design engineers, consulting engineers, port authority personnel, oil and bulk materials corporations, project managers, chief engineers, students - anyone involved in port planning, construction or maintenance. Every chapter has been rewritten and updated to reflect the latest on container ports, fenders for docks, new information on breakwaters and piles, up-to-date tabulation of ship sizes (including the new supertankers), plus an additional chapter on marinas. All of these topics and more are fully explained and illustrated in the clear language of the working engineer. Representing an ideal combination of the theoretical with the practical, this book is equally useful in the classroom, in the consultant's office, or on the construction site.

Rohsenow, W. and Harnett, J. Handbook of Heat Transfer, McGraw-Hill, 1972, 1526 pp, \$45.50.

A collection of basics, calculations, tables, charts, and design parameters, this is a handbook in the classic tradition. Topics covered include conduction, natural and forced convection, heat transfer in gasses and in chemically reacting flow, boiling, condensation, thermal radiation, thermal protection, two-phase flow, mass transfer cooling, and cryogenic heat transfer.

Rossnagel, W. Handbook of Rigging, 3rd Edition, McGraw-Hill, 1964, 375 pp, \$18.50.

Practical manual for construction and industrial rigging operations. Slings, scaffolds, ladders; cranes, jacks, and other methods for supporting and hoisting weights are fully detailed, with emphasis on their safe and efficient management.

Rothbart. Mechanical Design and Systems Handbook, McGraw-Hill, 1964, 1594 pp, \$44.50.

Provides a complete scientific basis for the dynamic analysis of mechanical systems and for machine design, and covers topics such as system analysis and synthesis, dynamics of contacting bodies, dynamics of materials, fasteners, and power control components and subsystems. It applies the factors of dynamics, power, and control to analysis and design of machines, mechanical elements, mechanical and electromechanical systems, controls, servomechanisms, analog computers, and automation.

Schick, W. and Merz, Jr., C. Fortran For Engineering, McGraw-Hill, 1972, 448 pp, \$9.95.

A Fortran programming manual written specifically for engineers as suggested by the Cosine Committee Report. Clear statements, discussions and examples are followed by programs based on real world engineering problems.

Schweitzer, Philip A. Handbook of Corrosion Resistant Piping, Industrial Press, 1969, 358 pp, \$30.00.

Discusses the wide range of corrosion resistant pipe and fittings presently available and pertinent design, installation, corrosion resistant, and economic factors necessary to handle specific situations.

Schweitzer, Philip A. Handbook of Valves, Industrial Press, 1972, 180 pp, \$20.00.

Greatly aids the valve user and/or specifier in making a correct choice of a valve for any particular application. Explains modifications in older conventional types, and the emergent new designs.

Skolnik, M. Radar Handbook, McGraw-Hill, 1970, 1536 pp, \$41.00.

Encyclopedic in scope and thoroughly detailed, here is the basic reference work on radar for those concerned with its applications in navigation, defense, satellite and missile tracking, weather study, and other established and experimental applications. Top specialists have provided a comprehensive, indepth survey covering the subsystems of which a radar is composed, radar techniques, performance analysis, signal management, environmental effects, examples of system application, and related subjects such as beacons, passive detection, and electromagnetic compatibility.

Smithsonian Science Information Exchange. Building Codes and Standards (Research Projects), SSIE, \$45.00.

A Smithsonian published search which details research projects being conducted in this area.

Smithsonian Science Information Exchange. Earthquake Resistant Construction (Research Projects), SSIE, \$45.00.

This publication includes information on the wide range of research being conducted in this field.

Smithsonian Science Information Exchange. Underwater Construction (Research Projects), SSIE, \$35.00.

Strock, Clifford and Koral, Richard L., Handbook of Air Conditioning, Heating and Ventilating, 2nd Edition, Industrial Press, 1966, 1472 pp, \$35.00.

Provides quick access to concise data and information needed by architects, engineers and mechanical contractors.

Tomlinson, M.J. Foundation Design and Construction, 3rd Edition, John Wiley & Sons, 1975, 785 pp, \$40.00.

Includes SI units in all cases when converting force, pressure, and stress. Contains site investigation techniques, soil mechanics, principles of foundation design, buoyancy rafts, pier and caisson foundations.

Urguhart, L. Civil Engineering Handbook, 4th Edition, McGraw-Hill, 1959, 1148 pp, \$29.50.

Principles, methods, practical pointers, and helpful data are contained in this easy-to-use, comprehensive reference guide to all branches of civil engineering. It covers everything from surveying water supply to highway and airport engineering.

Waddell, J. Concrete Construction Handbook, 2nd Edition, McGraw-Hill, 1974, 978 pp, \$32.50.

Specifics of mixing, pouring and curing of specification-quality concrete are clearly outlined in this new edition of the practical guide for field inspectors, construction superintendents, field engineers, and contractors. In addition to serving as a quality control manual, this revision includes new data on Portland cement, admixtures, steel, testing and inspection, pumping, fusion and curing, and lift slabs. Among the recent advances covered are those in geophysical and aerial surveying methods, concrete toughness and creep studies, use of plastics in formwork, aggregate beneficiation, etc.

Woodland, A.W. Petroleum and the Continental Shelf of North-West Europe, Volume I: Geology, John Wiley & Sons, 1975, 495 pp, \$47.50.

Contains 38 papers on the geology of the Continental Shelf of North-West Europe, with emphasis on the various North Sea oil and gas producing basins.

Woodward, R., Gardner, W. and Greer, D. Drilled Pier Foundations (Modern Structures Series), McGraw-Hill, 1972, 288 pp, \$18.95.

It discusses considerations, techniques, specification engineering, supervision, and inspection, and contains many specific examples.

Concrete Pipe Design Manual, Revised Edition, American Concrete Pipe Association, 400 pp, \$15.00.

The Concrete Pipe Design Manual is an indispensable manual to engineers who select the type, size and strength requirements of pipe. It contains design aids needed to assist engineers when specifying concrete pipe, and eliminates the lengthy computations previously required.

Corrosion and Its Control, Petroleum Publishing Co., 50 pp, \$3.00.

Covers the basics of corrosion control, giving a large variety of technical information and helpful pointers.

Designer's Guide for Deep-Ocean Ship Moorings, Hydrospace Research Corporation, Report No. 270, 1970.

Handbook of Engineering Fundamentals, 3rd Edition, Prepared by Staff of Specialists Under Editorship of Mott Souders & Ovid W. Eshback, John Wiley & Sons, 1975, 1568 pp, \$29.95.

Embodies in a single volume those fundamental laws and theories of science basic to engineering practice.

Marine Pipelay and Recovery, Petroleum Publishing Co., 35 pp, \$3.00.

Discusses the serious problems of pipeline abandonment and recovery in rough water areas such as the North Sea.

Nearshore Sediment Dynamics and Sedimentation: An Interdisciplinary Review, Edited by Hails, J., (Based on Symposium held in Department of Geography, University of Southampton, October 1973), Halsted Press (Wiley), 1975, \$31.00.

Reviews research into sediment and water mass movement, the parameters controlling wave dissipation, and the effects of sediment supply on shoreline equilibrium.

Offshore Platforms and Pipelining. Petroleum Publishing Co., 1976, 246 pp, \$17.95.

Describes the numerous and varied designs in offshore drilling and production platforms, methods of installation, geology, and problems in drilling and completing wells on the ocean bottom around the world. Difficulties of installing tanker mooring buoys are cited. The Regulations which those who drill, produce, and transport oil and gas must meet are also cited.

U. S. Navy Open Ocean Towing Manual, HydroSpace Research Corporation, Report No. 153, 1969.

Section II
Specifications, Standards, and Regulations

American Bureau of Shipping. Rules for Building and Classing Aluminum Vessels, American Bureau of Shipping, 1975, \$10.00

American Bureau of Shipping. Rules for Building and Classing Single Point Moorings, American Bureau of Shipping, 1975, \$7.50

American Bureau of Shipping. Rules for Building and Classing Offshore Mobile Drilling Units, American Bureau of Shipping, 1973, \$7.50

American Bureau of Shipping. Rules for Building and Classing Steel Barges for Offshore Service, American Bureau of Shipping, 1973, \$5.00

American Bureau of Shipping. Rules for Building and Classing Steel Vessels, English Language Edition, American Bureau of Shipping, Annual, \$20.00

American Petroleum Institute. Bulletin D18, Environmental Protection Laws and Regulations Related to Exploration, Drilling, Production, and Gas Processing Plant Operations, 1st edition, A.P.I., 1975, \$4.50

American Petroleum Institute. Recommended Practice For Care and Use of Cable Drilling and Fishing Tools, (RP3), 1st Edition, A.P.I., 1928 (reissued Nov '52 and Dec '75), \$1.00

Covers transportation, handling, makeup, dressing, and heat treatment of cable tools.

American Petroleum Institute. Recommended Practice For Design, Installation, and Operation of Subsurface Safety Valve Systems (RP14), First Edition, American Petroleum Institute, 1973, \$2.00

American Petroleum Institute. Recommended Practice For Operation and Maintenance of Offshore Cranes (RP2D), 1st Edition, A.P.I., 1972, \$1.00

Covers recommendations for developing safe operating practices and procedures compatible with operation of pedestal-mounted revolving cranes used offshore on bottom-supported platforms, floating drilling tenders, semi-submersible rigs, and other types of floating drilling equipment.

American Petroleum Institute. Recommended Practice For Planning, Designing, and Constructing Fixed Offshore Platforms, (RP2A), 7th edition, A.P.I., 1976, \$2.00.

Contains engineering design principles and good practices that have evolved during the development of offshore oil resources.

American Petroleum Institute. Recommended Practice For Production Facilities On Offshore Structures (RP2G), 1st Edition, A.P.I., 1974, \$1.50 (Supplement 1 to 1st Edition of RP2G, Jan 1975 - Free).

The intent of this Recommended Practice is to assemble into one document useful Procedures and Guidelines available in industry pertaining to planning, designing and arranging production equipment on offshore structures for safe, pollution free, and efficient production of oil and gas.

American Petroleum Institute. Specifications For Cabling Drilling Tools. (Spec 3) 12th Edition, A.P.I., 1974, \$1.50

Covers dimensional requirements on rope sockets (including swivel sockets) and jars, and threaded connections for these

and other cable drilling tools; also, requirements on gaging practice for the connections, including requirements on the thread gages and recommendation for their care and use. Recommended practices for turning the connection threads are included as an appendix.

American Petroleum Institute. Specification For Carbon Manganese Steel Plate For Offshore Platform Tubular Joints (Spec 2H), 1st Edition, A.P.I., 1974, \$1.00 (Supplement 1 to 1st Edition of Spec 2H, Jan 1975 - Free).

Covers intermediate strength steel plates up to 3 in. thick for use in welded tubular construction of offshore platforms.

American Petroleum Institute. Specification For Drilling Rig Packaging For Minimum Self-Contained Platforms (Spec 2E), 1st Edition, A.P.I., 1973, \$1.00

Provides dimensions and equipment arrangement for the packaging of the necessary drilling rig components for economic installation and efficient job performance on most minimum self-contained platforms. The check list of interacting rig-platform consideration provides the designers with early definition of contractor rig requirements avoiding costly rig and/or platform field modifications.

American Petroleum Institute. Specification For Fabricated Structural Steel Pipe. (Spec 2B), 2nd Edition, A.P.I., 1972, \$1.00. (Supplement 1 to Second Edition of Spec 2B, Jan 75 - Free).

Covers requirements for structural steel pipe fabricated from plate for use in construction of welded offshore fixed platforms.

American Petroleum Institute. Specification For Mooring Chain (Spec 2F), 1st Edition, A.P.I., 1974, \$1.00.

Covers flashwelded chain used for mooring of offshore floating vessels such as drilling vessels, pipe lay barges, derrick barges, and storage tankers.

American Petroleum Institute. Specification for Offshore Cranes. (Spec 2C), 2nd Edition, A.P.I., 1972, \$1.00 (Supplement 2 to the Second edition of Spec 2C, Jan 75 - Free).

Provides a uniform method for establishing rated loads for offshore cranes.

American Petroleum Institute. Specification For Subsurface Safety Valves. (Spec 14), 1st Edition, American Petroleum Institute, 1973, \$2.50 (Supplement 2 to 1st Edition of Spec 14A, Feb 76 - Free).

American Society For Testing and Materials. The 1975 Annual Book of ASTM Standards, ASTM, 1975.

IEEE. Recommended Practice For Grounding of Industrial and Commercial Power Systems (IEEE Standards Series), John Wiley & Sons, 1972, 95 pp, \$8.75.

IEEE. Standard and American National Standard Graphic Symbols For Electrical and Electronics Diagrams (including Reference Designation Class Designation Letters), John Wiley & Sons, 1971, 88 pp, \$12.75 (paper).

National Bureau of Standards. Index of International Standards, Government Printing Office, 1974, \$5.60.

National Bureau of Standards. An Index of State Specifications and Standards, Government Printing Office, 1973, \$3.70.

National Bureau of Standards. An Index of U.S. Voluntary Engineering Standards, Government Printing Office, 1971, \$12.25.

National Bureau of Standards. An Index of U.S. Voluntary Engineering Standards, Supplement 1, Government Printing Office, 1972, \$8.25.

National Bureau of Standards. An Index of U.S. Voluntary Engineering Standards, Supplement 2, Government Printing Office, 1974, \$8.25.

Section III
Technical Reports

Apgar, William J. and Basco, David R. An Experimental and Theoretical Study of the Flow Field Surrounding A Suction Pipe Inlet, (CDS No. 172), Texas A&M, 1973, \$3.00.

Basco, David. Systems Engineering and Dredging - the Feedback Problem, Texas A&M, 1973, \$3.00.

Brown, Roger A. and Coyle, Harry M. Soil Parameters Required to Simulate the Dynamic Lateral Response of Model Piles in Sand, (Project Report No. COE-145), Texas A&M, 1971, \$4.00.

Brown, Roger A. and Coyle, Harry M. Soil Parameters Required to Simulate the Dynamic Lateral Response of Model Piles in Stiff Clay, (Project Report No. COE-114), Texas A&M, 1971, \$4.00.

Burton, William J. and Sorensen, R. M. The Effects of Surface Roughness on the Wave Forces on a Circular Cylindrical Pile, (Project Report No. COE-121), Texas A&M, 1970, \$8.00.

Colp, J. L. and Herbich, J. B. Effects of Inclined and Eccentric Load Application on the Breakout Resistance of Objects Imbedded in the Sea Floor, (Project Report No. COE-153), Texas A&M, 1972, \$5.00.

Chestnut, Charles B. and Schiller, R. E. Scour of Simulated Gulf Coast Sand Beaches Due to Wave Action in Front of Sea Walls and Dune Barriers, (Project Report No. COE-139), Texas A&M, 1971, \$4.00.

deCatongrene, Russell O. and Dominguez, Richard F. An Investigation into the Properties and Characteristics of Homogeneous Tapered Cables, (Project Report No. COE-183), Texas A&M, 1975, \$3.00.

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Dominguez, R. F. and Herbich, J. B. Revetment Stability Study for Puerto Yabuccoa Harbor, Puerto Rico, (Project Report No. COE-134), Texas A&M, 1971, \$4.00.

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Ford, R. J. and Gallaway, Bob M. Galvanic Corrosion of Structural Aluminum Coupled with Mild Steel in a Dilute Sodium Dichromate Electrolyte, (Project Report No. COE-119), Texas A&M, 1970, \$4.00.

Garrison, C. J. and Snider, R. H. Wave Forces on a Large Submerged Hemispherical Object, (Project Report No. COE-177), Texas A&M, 1970, \$4.00.

Herbich, J. B. Beach Scour at Seawalls and Natural Barriers, (Project Report No. COE-107), Texas A&M, 1969, \$1.50.

Herbich, J. B. Industry's Interest in Ocean Engineering Programs, (Project Report No. COE-149), Texas A&M, 1971, \$4.00.

Herbich, J. B. Ocean Engineering Programs Present Status and Future Development, (Project Report No. COE-125), Texas A&M, 1970, \$3.00.

Irvine, R. L. CE-683-Estuary Hydrodynamics, (Project Report No. COE-136), Texas A&M, 1970, \$6.00.

Lai, N. W., Dominguez, R. F. and Dunlap, W. A. Numerical Solutions for Determining Wave-Induced Pressure Distributions Around a Buried Pipeline, (Sea Grant Report TAMU-SG-75-205), Texas A&M, 1974, \$3.00.

Mechemehl, Jerry L. and Herbich, John B. Effects of Slope Roughness on Wave Run-Up on Composite Slopes, (Project Report No. COE-129), Texas A&M, 1970, \$5.00.

Orr, Terry E. and Herbich, J. B. Numerical Calculations of Refraction by Digital Computer, (Project Report No. COE-114), Texas A&M, 1969, \$4.00.

Ralston, D. O. and Herbich, J. B. The Effects of Waves and Currents on Submerged Pipelines, (Project Report No. COE-101), Texas A&M, 1968, \$4.00.

Rao, V. S. and Garrison, C. J. Interaction of a Train of Regular Waves with a Rigid Submerged Ellipsoid, (Project Report No. COE-142), Texas A&M, 1971, \$5.00.

Ross, H. E. Dynamic Response of Laterally Loaded Offshore Piling, (Project Report No. 132), Texas A&M, 1970, \$4.00.

Schmeltz, E. J. and Sorensen, R. M. A Review of the Characteristics, Behavior and Design Requirements of Texas Gulf Coast Tidal Inlets, (Project Report No. COE-156), Texas A&M, 1973, \$4.00.

Seeling, W. M. and Sorensen, R. M. Historic Shoreline Changes in Texas, (Project Report No. COE-165), Texas A&M, 1973, \$2.00.

Shank, G. E. and Herbich, J. B. Forces Due to Waves on Submerged Structures, (Project Report No. COE-123), Texas A&M, 1970, \$4.00.

Song, Won Oh and Schiller, Robert E. Experimental Studies of Beach Scour Due to Wave Action, (Project Report No. 166), Texas A&M, 1973, \$3.00

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Ward, Michael and Sorensen, Robert M. A Method of Tracing Sediment Movement on the Texas Gulf Coast, (Project Report No. COE-138), Texas A&M, 1970, \$4.00.

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Welte, H. Wear Phenomena in Centrifugal Dredge Pumps, Translated by D. Rachman, (Report No. CDS-102), Texas A&M, 1968, \$4.00.

Section IV
Proceedings and Journal Articles

Bailey, Edmond I., Davis, Grayum L. and Henderson H. O. "Design of an Automatic Marine Corer", Offshore Technology Conference, 1971, \$1.50.

Basco, David R. "Analytical Model of Hydraulic Pipeline Dredge", Journal Waterways, Harbors and Coastal Engineering Division, ASCE, February, 1975, \$3.00.

Basco, David R., and Adams, John R. "Drag Forces on Baffle Blocks in Hydraulic Jumps", Proceedings of the American Society of Civil Engineers, 1971.

Chestnutt, C. B. and Schiller, R. E. "Scour of Gulf Coast Beaches Due to Wave Action", Offshore Technology Conference, 1971, \$1.00.

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Garrison, C. J., Rao, V. S. and Snider, R. H. "Wave Interaction with Large Submerged Objects", Offshore Technology Conference, 1970, \$1.00.

Hales, Lyndell Z and Herbich, J. B. "The Influence of Tidal Inlet Currents on the Propagation of Wave Energy into Estuaries - Physical Model Indications", International Symposium on River Mechanics, 1973, \$1.00.

Hales, Z. L. and Herbich, J. B. "Tidal Inlet Current - Ocean Wave Interaction", Proceedings of the 13th Coastal Engineering Conference, Chapter 36, 1972, \$1.00.

Herbich, J. B. and Versowsky, Paul. "Wave Forces on Underwater Storage Tanks", IEEE International Conference on Engineering and Ocean Environment, 1974, \$1.00.

Herbich, J. B. and Hales, Z. L. "Remote Sensing Techniques Used in Determining Changes in Coastlines", Offshore Technology Conference, 1971, \$1.00.

Herbich, J. B. and Hales, Lyndell. "The Effect of Tidal Inlet Currents on the Characteristics and Energy Propagation of Ocean Waves", Offshore Technology Conference, (Paper No. 1618), 1972, \$1.50.

Herbich, J. B. and Lou, Y. K. "Stable Catamaran Hulls for Cutterhead Dredges", Offshore Technology Conference, (Paper No. OTC 2290), 1975, \$1.50.

Herbich, J. B. and Walsh, Peter. "Supercritical Flow in Rectangular Expansions", Proceedings of the American Society for Civil Engineers, (Paper No. 9216, HY 9) 1972, \$1.00.

Herbich, J. B. "Scour of Sand Beaches in Front of Sea Walls", Proceedings of the 11th Conference on Coastal Engineering, 1968, \$1.00.

- Herbich, J. B. "Prevention of Scour at Bridge Abutments", Proceedings of the 12th Congress of the International Association for Hydraulic Research, (Paper B9, Vol. 2), September 1976, \$1.00.
- Herbich, J. B. "Engineering Resources", Proceedings, Third National Sea Grant Conference, Oregon State University, 1970, \$1.00.
- Herbich, J. B. "Ocean Engineering", Proceedings, Fourth National Sea Grant Conference, 1971, \$1.00.
- Ketchman, Jeffrey, and Lou, Y. K. "Applications of the Finite Element to Towed Cable Dynamics", Proceedings of the OCEAN '75 Conference, 1975, \$1.50.
- Herbich, J. B. "Research Needs of Dredging Industry", Proceedings, World Dredging Conference, WODCON '68, October, 1968, \$1.00.
- Herbich, J. B. "Methods for Offshore Dredging", Proceedings, World Dredging Conference, WODCON VI, 1974, \$1.00.
- Machemehl, J. L. and Herbich, J. B. "Wave Run-Up on Composite Beaches - Effects of Roughness", Offshore Technology Conference, 1971, \$1.50.
- Orr, Terry E. and Herbich, J. B. "Numerical Calculation of Wave Refraction from Shorelines by Digital Computer", Offshore Technology Conference, 1970, \$1.00.
- Ross, Hayes E. "Dynamic Response of Offshore Piling", Offshore Technology Conference, 1971, \$1.50.
- Smith, Charles E. and Dominguez, R. F. "Oscillations of Buoy-Cable Mooring Systems", Flow-Induced Structural Vibrations Symposium IUTAM-IAHR, 1974, \$1.00.

So, Tsung-Chow and Lou, Y. K. "The Effects of Viscosity on the Dynamics of Submerged Spherical Shell", Fifth National Vibration Conference, 1975, \$1.50.

Sorensen, Robert M. "Waves Generated by Model Ship Hull" Journal of the Waterways and Harbors Division, Proceedings of the American Society of Civil Engineers, 1969, \$1.00.

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ASME National Congress on Pressure Vessels and Piping, 21 San Francisco, 1975, Reliability Engineering In Pressure Vessels and Piping..., Edited by Gangadharan, A. C. American Society of Mechanical Engineers, 1975, \$11.00.

Proceedings of the Third Dredging Seminar, Coastal and Ocean Engineering Division, Texas A&M, November, 1970, \$4.00.

Proceedings of the Fifth Dredging Seminar, Coastal and Ocean Engineering Division, Texas A&M, June, 1973, \$3.00.

Proceedings of the Sixth Dredging Conference. Center for Dredging Studies, Texas A&M, March, 1974, \$3.00.

Proceedings of the Seventh Dredging Conference. Center for Dredging Studies, Texas A&M, September, 1975, \$6.00.

Section V
"NTIS Published Searches"

Brown, Robert J. Ocean Law, National Technical Information Service, 1975, 163 pp, \$25.00.

The bibliography cites national and international laws on fishing, undersea mining, shipping, dredging, territorial waters, navigation regulations, seafloor minerals, offshore drilling, and water pollution. (Contains 163 abstracts)

Grooms, David W. Finite Elements in Structural Analysis, National Technical Information Service, 1975, 70 pp, \$25.00.

Dynamic and static problems are analyzed as well as linear and nonlinear problems. Some computer programs for finite element analysis are also presented.

Habercom, Guy E. Cold Weather Construction, National Technical Information Service, 1976, 125 pp, \$25.00.

Construction methods and materials performance in cold weather and in polar environments are presented. The citations exclude permafrost construction.

Habercom, Guy E. Marine Anchors, National Technical Information Service, 1975, 106 pp, \$25.00.

Marine anchors, their design, emplacement methods, and holding power are reviewed in these abstracts of Government-sponsored research reports. The hydrodynamics of anchor mooring systems is reviewed.

Habercom, Guy E. Mathematical Analysis of Stress Cracks, Vol. I, National Technical Information Service, 1975, 207 pp, \$25.00.

Stress cracks are analyzed by mathematical methods, including extensive use of finite element analysis. Various materials, including metals, composites, and rock, are investigated.

Habercom, Guy E. Mathematical Analysis of Stress Cracks, Vol II, National Technical Information Service, 1975, 109 pp, \$25.00.

Stress cracks are analyzed by mathematical methods, including extensive use of finite element analysis. Various materials, including metals, composites, and rock, are investigated.

Habercom, Guy E. Offshore Drilling, National Technical Information Service, 1975, 116 pp, \$25.00.

Drilling procedures, equipment, environmental aspects, and legal implications involved in oceanic mineral resources recovery are investigated in these Government-sponsored research reports.

Habercom, Guy E. Offshore Structures, National Technical Information Service, 1975, 110 pp, \$25.00.

Offshore structures are investigated relative to their feasibility, design, construction, marine environments, and environmental impact in these Government-sponsored research reports.

Habercom, Guy E. Supertankers and Superports, National Technical Information Service, 1975, 81 pp, \$25.00.

Construction and operation of supertankers and the requirements for port facilities are reviewed in these Government-sponsored research reports. The environmental aspects are investigated.

Habercom, Guy E. Underwater Construction and Mining, National Technical Information Service, 1976, 200 pp, \$25.00.

Underwater minerals, mining techniques, legal implications, and construction techniques are reviewed in the Government-sponsored research reports.

Lehmann, Edward J. Ocean Waste Disposal, National Technical Information Service, 1975, 164 pp, \$25.00.

The majority of the cited topics discuss the ocean disposal of sewage, sewage sludge, and dredged material, although reports on the disposal of radioactive wastes, brines and industrial wastes are also covered. The ecological affects are included as is research on the pollution of the New York Bight. However, studies on the discharge of heated effluents is excluded.

Smith, Mona F. Sea Water Corrosion, National Technical Information Service, 1976, 208 pp, \$25.00.

Corrosion of ships, oceanographic equipment, platforms, under-water vehicles, drill pipe, steel pilings and cables are covered in this research. Materials studied include steel and other alloys, concrete, composites and nuclear reactor components.